Addison’s disease associated with advanced HIV may explain the high mortality

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2022-10-05

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# Table 1

| Variable | N | Overall, N = 4291 | Females, N = 2181 | Males, N = 2111 | p-value2 |
| --- | --- | --- | --- | --- | --- |
| **Age at enrolment** | 429 | 36 (31, 42) | 35 (31, 41) | 37 (32, 43) | 0.058 |
| **Ethnicity** | 427 |  |  |  | 0.069 |
| Asian |  | 1 (0.2%) | 0 (0.0%) | 1 (0.5%) |  |
| Black African |  | 356 (83.4%) | 176 (81.1%) | 180 (85.7%) |  |
| Coloured |  | 68 (15.9%) | 41 (18.9%) | 27 (12.9%) |  |
| White |  | 2 (0.5%) | 0 (0.0%) | 2 (1.0%) |  |
| **Duration of current illness** | 399 | 14 (14, 21) | 14 (14, 30) | 14 (14, 21) | 0.3 |
| **Opportunistic infection present** | 426 | 423 (99.3%) | 214 (98.6%) | 209 (100.0%) | 0.2 |
| **log10 viral load** | 96 | 4.47 (3.13, 5.34) | 4.07 (3.22, 5.24) | 4.61 (3.04, 5.37) | >0.9 |
| **Total CD4 count** | 427 | 31 (14, 60) | 32 (15, 58) | 30 (12, 64) | >0.9 |
| **Sodium** | 407 | 134.0 (130.0, 137.0) | 135.0 (131.0, 138.0) | 133.0 (129.0, 136.5) | 0.001 |
| **Potassium** | 408 | 4.05 (3.60, 4.60) | 3.90 (3.50, 4.40) | 4.20 (3.80, 4.70) | <0.001 |
| **Haemoglobin** | 425 | 8.70 (7.40, 10.30) | 8.30 (7.10, 9.50) | 9.30 (7.90, 10.90) | <0.001 |
| **White cell count** | 422 | 5.4 (3.6, 8.0) | 5.6 (3.7, 8.1) | 5.3 (3.5, 7.8) | 0.6 |
| **Lymphocyte count** | 92 | 0.8 (0.4, 1.8) | 0.9 (0.3, 3.5) | 0.8 (0.4, 1.3) | >0.9 |
| **Neutrophils** | 92 | 3 (1, 8) | 3 (1, 10) | 3 (1, 7) | 0.6 |
| **Addisons disease** | 318 | 30 (9.4%) | 16 (9.6%) | 14 (9.3%) | >0.9 |
| 1Median (IQR); n (%) | | | | | |
| 2Wilcoxon rank sum test; Fisher's exact test; Pearson's Chi-squared test | | | | | |

# Table 1.1: Opportunistic infections by gender

| Variable | N | Overall, N = 4291 | Female, N = 2181 | Male, N = 2111 | p-value2 |
| --- | --- | --- | --- | --- | --- |
| **Tuberculosis** | 429 |  |  |  | 0.7 |
| Checked |  | 313 (73%) | 161 (74%) | 152 (72%) |  |
| Unchecked |  | 116 (27%) | 57 (26%) | 59 (28%) |  |
| **Cryptococcus neoformans** | 429 |  |  |  | >0.9 |
| Checked |  | 1 (0.2%) | 1 (0.5%) | 0 (0%) |  |
| Unchecked |  | 428 (100%) | 217 (100%) | 211 (100%) |  |
| **Toxoplasmosis** | 429 |  |  |  |  |
| Unchecked |  | 429 (100%) | 218 (100%) | 211 (100%) |  |
| **Mycobacterium avium-intracellulare** | 429 |  |  |  |  |
| Unchecked |  | 429 (100%) | 218 (100%) | 211 (100%) |  |
| **Kaposis sarcoma** | 429 |  |  |  | 0.5 |
| Checked |  | 1 (0.2%) | 0 (0%) | 1 (0.5%) |  |
| Unchecked |  | 428 (100%) | 218 (100%) | 210 (100%) |  |
| **Cytomegalovirus** | 429 |  |  |  | 0.5 |
| Checked |  | 1 (0.2%) | 0 (0%) | 1 (0.5%) |  |
| Unchecked |  | 428 (100%) | 218 (100%) | 210 (100%) |  |
| **Other** | 429 |  |  |  | 0.5 |
| Checked |  | 113 (26%) | 54 (25%) | 59 (28%) |  |
| Unchecked |  | 316 (74%) | 164 (75%) | 152 (72%) |  |
| 1n (%) | | | | | |
| 2Pearson's Chi-squared test; Fisher's exact test | | | | | |

# Table 2: comparing Addisons status with other variables

| Variable | N | no, N = 2881 | yes, N = 301 | p-value2 |
| --- | --- | --- | --- | --- |
| **Age at enrolment** | 318 | 36 (31, 42) | 36 (31, 43) | 0.9 |
| **gender** | 318 |  |  | >0.9 |
| Females |  | 151 (52.4%) | 16 (53.3%) |  |
| Males |  | 137 (47.6%) | 14 (46.7%) |  |
| **Ethnicity** | 317 |  |  | 0.5 |
| Black African |  | 235 (81.9%) | 26 (86.7%) |  |
| Other |  | 52 (18.1%) | 4 (13.3%) |  |
| **Duration of current illness** | 300 | 14 (14, 30) | 14 (14, 21) | 0.4 |
| **Opportunistic infection present** | 317 |  |  |  |
| Yes |  | 287 (100.0%) | 30 (100.0%) |  |
| **log10 viral load** | 65 | 4.71 (3.27, 5.37) | 5.04 (4.79, 5.17) | 0.6 |
| **Total CD4 count** | 317 | 31 (14, 56) | 26 (12, 56) | 0.6 |
| **Sodium** | 303 | 133.0 (130.0, 137.0) | 135.0 (131.0, 137.0) | 0.10 |
| **Potassium** | 304 | 4.10 (3.65, 4.60) | 3.90 (3.30, 4.60) | 0.4 |
| **Haemoglobin** | 317 | 8.80 (7.40, 10.40) | 8.30 (7.62, 10.37) | >0.9 |
| **White cell count** | 316 | 5.7 (3.9, 8.2) | 5.1 (2.9, 8.2) | 0.5 |
| **Lymphocyte count** | 62 | 0.7 (0.4, 1.6) | 0.9 (0.6, 1.3) | 0.3 |
| **Neutrophils** | 61 | 3 (1, 7) | 7 (1, 15) | 0.7 |
| 1Median (IQR); n (%) | | | | |
| 2Wilcoxon rank sum test; Pearson's Chi-squared test | | | | |

# Table 3: Bivariate table

| Characteristic | N | HR1 | 95% CI1 | p-value |
| --- | --- | --- | --- | --- |
| Age\_at\_enrolment | 430 | 1.02 | 0.99, 1.05 | 0.2 |
| gender | 429 | 0.78 | 0.45, 1.34 | 0.4 |
| Ethnicity | 428 | 0.89 | 0.42, 1.88 | 0.8 |
| Duration\_of\_current\_illness | 400 | 1.00 | 0.99, 1.01 | 0.6 |
| Log10\_viralload | 97 | 1.57 | 1.00, 2.47 | 0.049 |
| Total\_CD4\_count | 428 | 0.99 | 0.98, 1.00 | 0.2 |
| Sodium | 408 | 0.99 | 0.95, 1.04 | 0.7 |
| Potassium | 409 | 0.85 | 0.63, 1.15 | 0.3 |
| Haemoglobin | 426 | 1.00 | 0.97, 1.02 | 0.8 |
| White\_cell\_count | 423 | 1.00 | 1.00, 1.00 | 0.8 |
| Lymphocyte\_count | 93 | 0.86 | 0.68, 1.09 | 0.2 |
| Neutrophils | 93 | 0.99 | 0.96, 1.02 | 0.5 |
| Addisons\_disease | 318 | 1.18 | 0.47, 2.97 | 0.7 |
| 1HR = Hazard Ratio, CI = Confidence Interval | | | | |

# Table 4: Multivariate table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variable | Adj. HR | Lower CI | Upper CI | P value |
| Addison’s disease | 0.951 | 0.2473 | 3.6602 | 0.94383 |
| Log10 viral load | 1.825 | 1.3438 | 2.4772 | 0.00208 |
| Lymphocyte count | 0.906 | 0.7905 | 1.0395 | 0.22019 |
| Potassium | 0.879 | 0.6764 | 1.1416 | 0.3386 |
| Gender | 0.744 | 0.4224 | 1.3089 | 0.31018 |